Name _____

Measuring the Densities of Irregular Objects
Lab 2.3

1. Explain the procedure you would use to determine the density of the steel screw, copper cylinder, and nylon spacer.

2. Label your data table. Don't forget to include space for all of your measurements, calculations, and the density of the objects. Use the correct units of measure when labeling the columns.

Table 1: Comparing Different Objects

Throughout the past few labs, you measured the mass and volume and calculated the density of a liquid and some solids. Answer the following questions to sum up what you have learned. (Use your notes as well as other labs to help you.)

3. What is the difference between mass and volume?

4. What units did you use to measure mass?

5. What units did you use to measure volume?

6. How did you calculate the volume of a block?

7. How did you find the volume of irregularly shaped objects? (Include all necessary steps.)

8. How did you calculate the density of an object?

9. What units did you use to measure density?

10. Does changing the amount of a substance change its density? EXPLAIN (give an example to support your answer)

11. If a substance is used to make two different objects (like a nail and a ship), will that change the density of the substance? EXPLAIN

12. If you do not know the identity of a substance, what property could you use to determine the material from which it is made? EXPLAIN

13. What is the density of water?

14. How do the densities of the objects in this lab compare with the density of water?

15. What determines whether an object will float or sink in water? (BE SPECIFIC)

16. Explain why an iron ship floats but an iron nail sinks in water.